

Cherry

Samba

Noire de Meched

2 trials



AIM OF THE STUDY:

WHAT IS THE IMPACT OF THE HDCOLD® TECHNOLOGY ON THE STORAGE QUALITY OF CHERRY COMPARED TO A STANDARD COLD ROOM?

Current practice^{1,2,3} :

- Recommended storage:
0-1°C / 90-95 % RH
Up to 1 week
- Existing technologies to extend storage:
 - Pre-cooling (hydrocooling, forced air cooling...)
 - Modified atmosphere (packaging)
 - Controlled atmosphere

HDCold® technology:

- Cold system which maintain natural relative humidity at high levels (>98 %)
 - No addition of liquid water
 - Decrease of water loss, and therefore weight loss of the products
- Low temperature difference between the set point and the refrigerant:
 - Less hydric stress on the products
 - Less to no frost formation



RESULTS

2021 trial: Samba (South-West, France)

2022 trial: Noire de Meched (South-West, France)

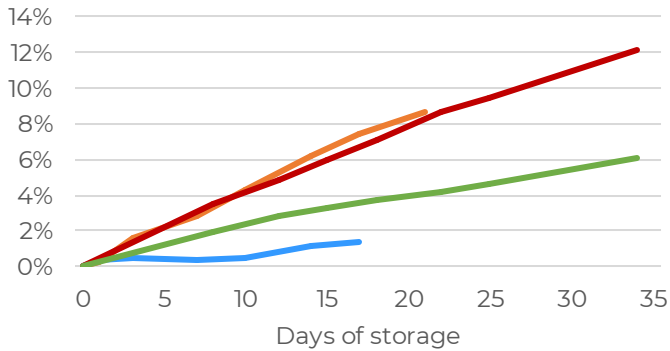
2021 Classical cold room (8°C)

2022 Classical cold room (2°C)

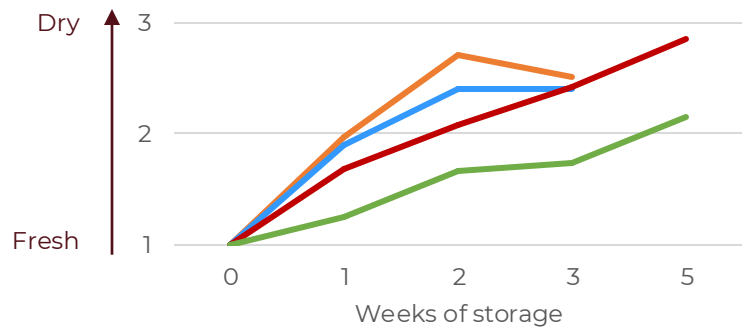
2021 HDCold® cold room (8°C / 98 % RH)

2022 HDCold® cold room (2°C / 98 % RH)

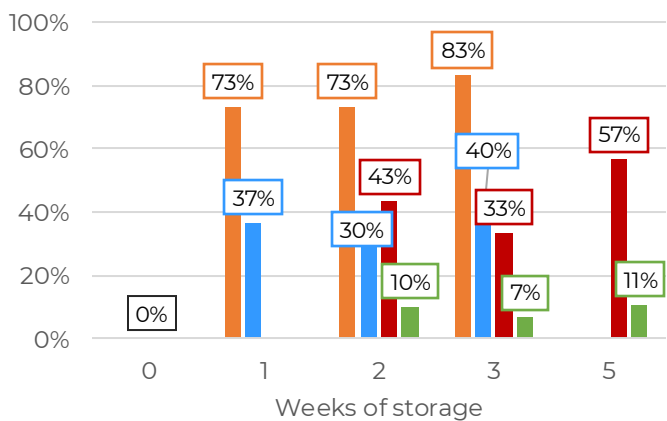
Weight loss (%)



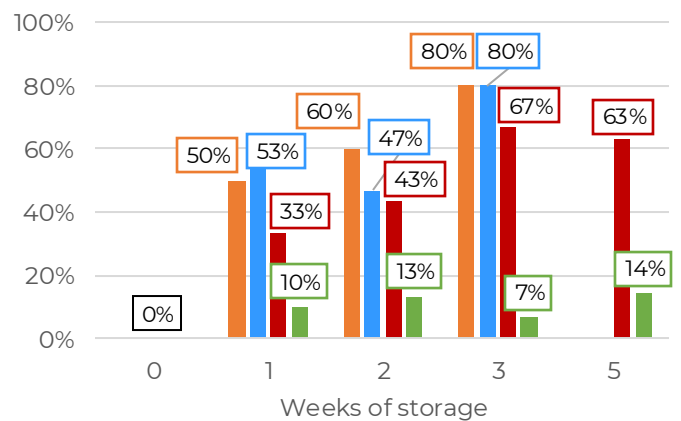
Dried out stems (mark: 1-3)



Wilting (% wilted fruits)



Loss of shininess of the skin (% matte fruits)



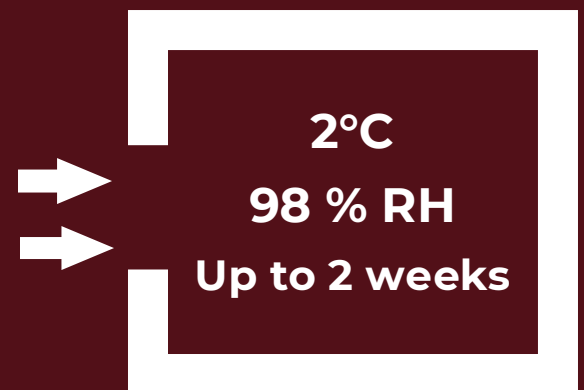
CONCLUSIONS

Based on these results, using the **HDCold® technology** results in:

- ✓ **Reduced weight loss** by half
- ✓ **Lowered wilting occurrence**, as well as **dried stems**
- ✓ **Delayed loss of shininess** of the fruit skin

No significant difference were noted between both storages on **fungal development**, **sugar content** and **titrable acidity**.

RECOMMENDATIONS



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